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«Device» for *Poker* card game

Object-oriented programming with explicit state selection

Project documentation

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1. Introduction

The aim of this project was to study SWITCH-technology and instrumental tool *Unimod*. As an example implementation of device for *Poker* card game was made. Reliability and user-friendly interface are important for such systems. Probable, automata approach is one of the most convenient ways to solve such problems.

2.   Problem definition

The aim is to develop managing system for "Device" for *Poker* card game.

2.1.   Rules of the game

There are to players in the game – the gambler and the "Device". Rules of the game can be described with following algorithm:
1. The game latest till the gambler has money.
2. The initial bet of player is N coins.
3. "Device" deals top five cards to gambler (back downwards).
4. The gambler picks out any of these five cards. Other cards are changed to new by "device".
5. The gambler has won if one of the following combinations is present:
     * «Jacks Or Better» – two cards of the same value, the value should be "Jack" or higher. Won coefficient[1] is «1»;
     * «Two Pairs» – two pairs of cards of the same value. Won coefficient is «2»;
     * «Three of a Kind» – three cards of the same value. Won coefficient is «4»;
     * «Straight» – five cards with straight going values. Won coefficient is «5»;
     * «Flush» – five cards of the same suit. Won coefficient is «6»;
     * «Full House» – two cards of the same value and three cards of the same value. Won coefficient is «7»;
     * «Four of a Kind» – four card of the same value. Won coefficient is «25»;
     * «Straight Flush» – five cards of the same suit with straight going values. Won coefficient is «50»;
     * «Royal Flush» – five cards with straight going values, the highest card is "Ace". Won coefficient is «300».
6. If the gambler has won then next step is 7, otherwise – 11.
7. The gambler can take the money he has won (next step is 11) or double up his bet (step 8).
8. "Device" deals five cards from reshuffled deck – one back downwards, other – back upwards.
9. The gambler chooses one o the cards lying back upwards.
10. If the value of gambler's card is higher than the card of "device" then the gambler has won (next step is 7), if tied then the gambler keeps his bet (next step is 7), otherwise the gambler has lost the dial (next step is 11).
11. The dial is over. The gambler can play one more time or take the money, he has won.

[1] Won coefficient – the number, by which the bet is multyplied.

2.2. Non-formal description of device's work and graphical user interface

1. The money managing frame is opened on start of application (pic. 1). The gambler can insert coins or false coins into device.

Pic.1. The money managing frame

2. On insertion of a coin gambler's account is increased. When false coin is inserted, the device becomes blocked (pic. 2). The "Call supervisor button" will unblock the device.
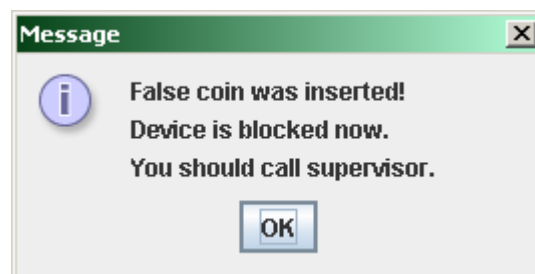
Pic.2. False coin was inserted

3. After some coins were inserted, the gambler can start the game ("Start game" button).
4. The game frame is opened (pic. 3). The gambler can change the bet with "Increase bet" and "Decrease bet" buttons. The bet is shown on the screen. The gambler can press "Dial" button and start new dial. The gambler can take money ("Take money" button). The frame with money sum is opened, after this button was pressed, and device goes to the first step. If the gambler went bankrupt the message is shown and the device goes to the first step.
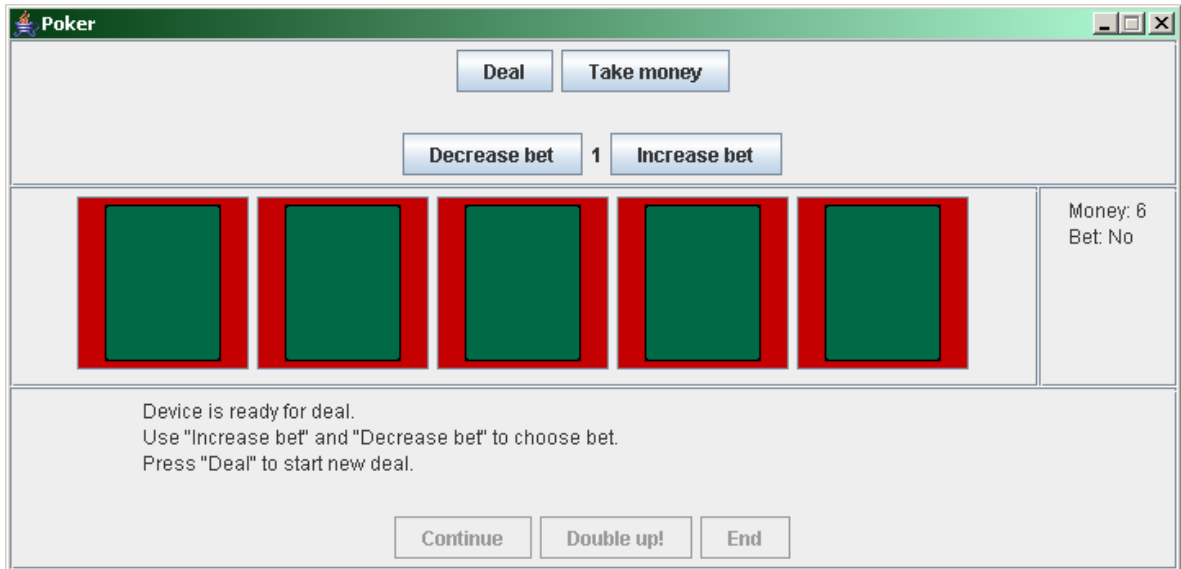
Pic.3. The gambler makes his bet

5. When the game is started five cards are given to gambler (pic. 4).
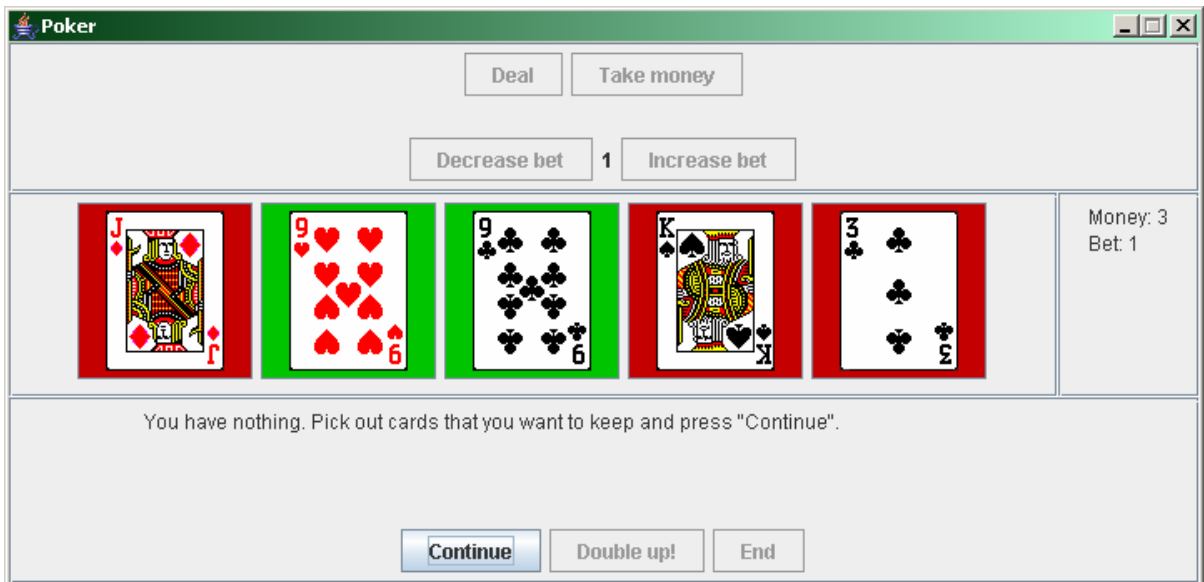
Pic.4. First deal of the cards. The gambler can leave some of them

The gambler picks some of them out and presses "Continue" button. Then the device deal new cards instead cards which were not chosen (pic. 5).
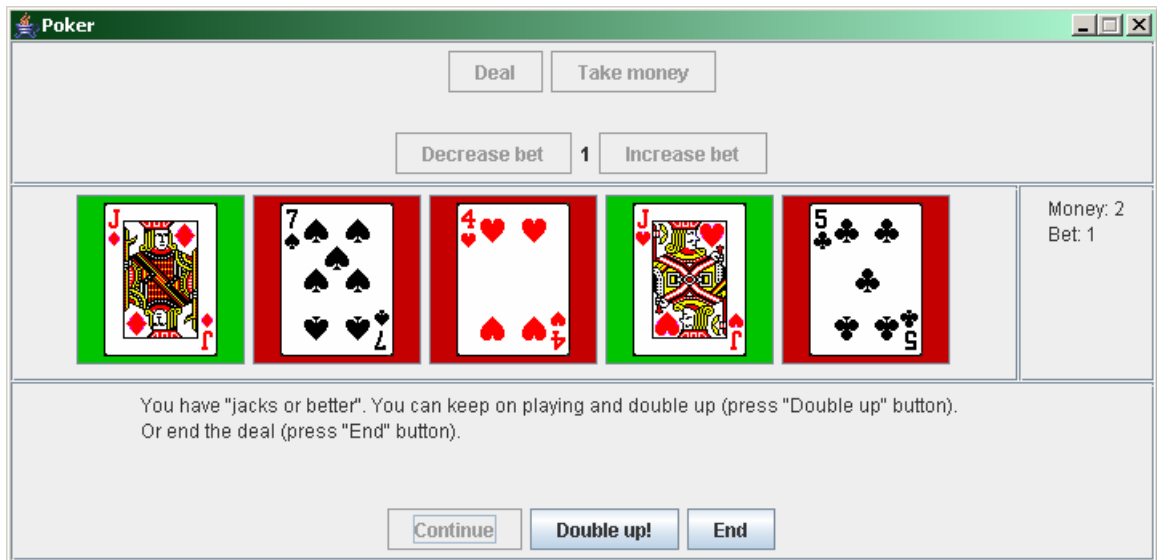
Pic.5. Seconds dial of cards. If player wins he can double up the bet

6. If player has got no winning combination then he has lost the game. Otherwise the gambler can press "End" button (next step is 4) or "Double up" the bet (next step is 7).

7. The device shuffles the deck and deals five cards to the gambler, one of them is put back downwards and other – back upwards (pic. 6).

Pic.6. Double up of the bet

8. The gambler picks out one of the cards, which are lying back upwards. If the value of the card, that the gambler has chosen, is greater than the value of device's card then the gambler has one. If they tied then the player keeps his bet. In this two cases the gambler can press "End" button (next step is 4) or "Double up" button (next step is 7). If the gambler ha lost then next step is fourth.

2.3. Formal description of script

The script described in the previous section divides the game process into stages – states in which program waits for user input. Our next step is formalization of this script. The stage will be marked as number j, and transitions between stages will be marked as pairs of number (i, j), where i is stage number, which the transition is made from, and j – number of stage, which is the destination of transition.

1. On start the managing money frame is opened.
(1, 1) The coin was inserted into device (event e241). The gambler's account is increased by one (output action o2.z205).
(1, 2) The false coin is inserted into device (e242). The device is blocked (o1.z126).
(1, 3) The "Start game button" was pressed.

2. The device is blocked, because the false coin was inserted.
(2, 1) The unblock button was pressed (e244). The device is unblocked (o1.z406).

3. The device is ready to deal cards.
(3, 3) The gambler increased the bet (event e205, output action o2.z208).
(3, 3) The gambler decreased the bet (e206, o2.z209).
(3, 4) The gambler pressed "Deal" button (e200). The device deals to gambler five cards (o2.z200).
(3, 1) The gambler went bankrupt (e230). Next stage is the first one (o1.z141).
(3, 1) The gambler took money (e204). Next stage is the first one (o1.z141).

4. The gambler picks out the cards to keep.
(4, 4) The gambler has chosen the Nth card (e21N). Reflection of cards is updated (o1.z301).
(4, 5) The gambler presses "Continue" button (e201).

5. It is checked whether the gambler has winning combination (o3.x300). If o3.x300 is not true then only first transition is posible.
(5, 3) The gambeler pressed "End" button (e203). Next stage is the third one (o1.z103).
(5, 6) The gambler pressed "Double up" button (e220). Transition into doubl-up mode (o2.z203).

6. "Double up". The gamble picks out one of four cards.
(6, 7) The gambler picked out the Nth card (e21N, $N \neq 1$).

7. Value of gambler's card is checked (o3.x301). If o3.x301 equals -1 (value is gambler's card is smaller), only first transition is possible.
(7, 3) The gambler pressed "End" button (e203). Next stage is the third one (o1.z103).
(7, 6) The gambler pressed "Double up" button (e220). Transition into double-up mode (o2.z203).

2.4. Why *Unimod*?

Automata approach for this problem is quite natural, since it has recommended itself for such problems [1].

One of characteristic features of automata approach is that designing is the main part of development – construction of system of finite automata and controlled objects. Instrumental tool *Unimod* [2], which is a plug-in for IDE *Eclipse* [3], lets the developer not to think about core and interface logic and concentrate on designing of the system. Moreover it is needed to code only events, output actions and animation of the gambler.

Let's show an example of this coding phase. The button was pressed – an event occurred. For this case the handler is written manually on *Java* programming language, result of this code should an event that can be caught with instrumental tool *Unimod*.

Sources of the program, which were coded manually, are in Appendix 1: functions that implements event providers (Appendix 1.1) and controlled objects (Appendix 1.2). Moreover program contains auxiliary classes (Appendix 1.3). The first one implements the frame; the second one is the data structure which stores the card, and the third checks combination.

Animation in this project is implemented in next way: a controlled object was made for main frame. To change the frame state manually coded methods are used. These methods are called with help of output actions.

3. Automata

Connectivity scheme of automata and controlled objects is shown on fig. 7.
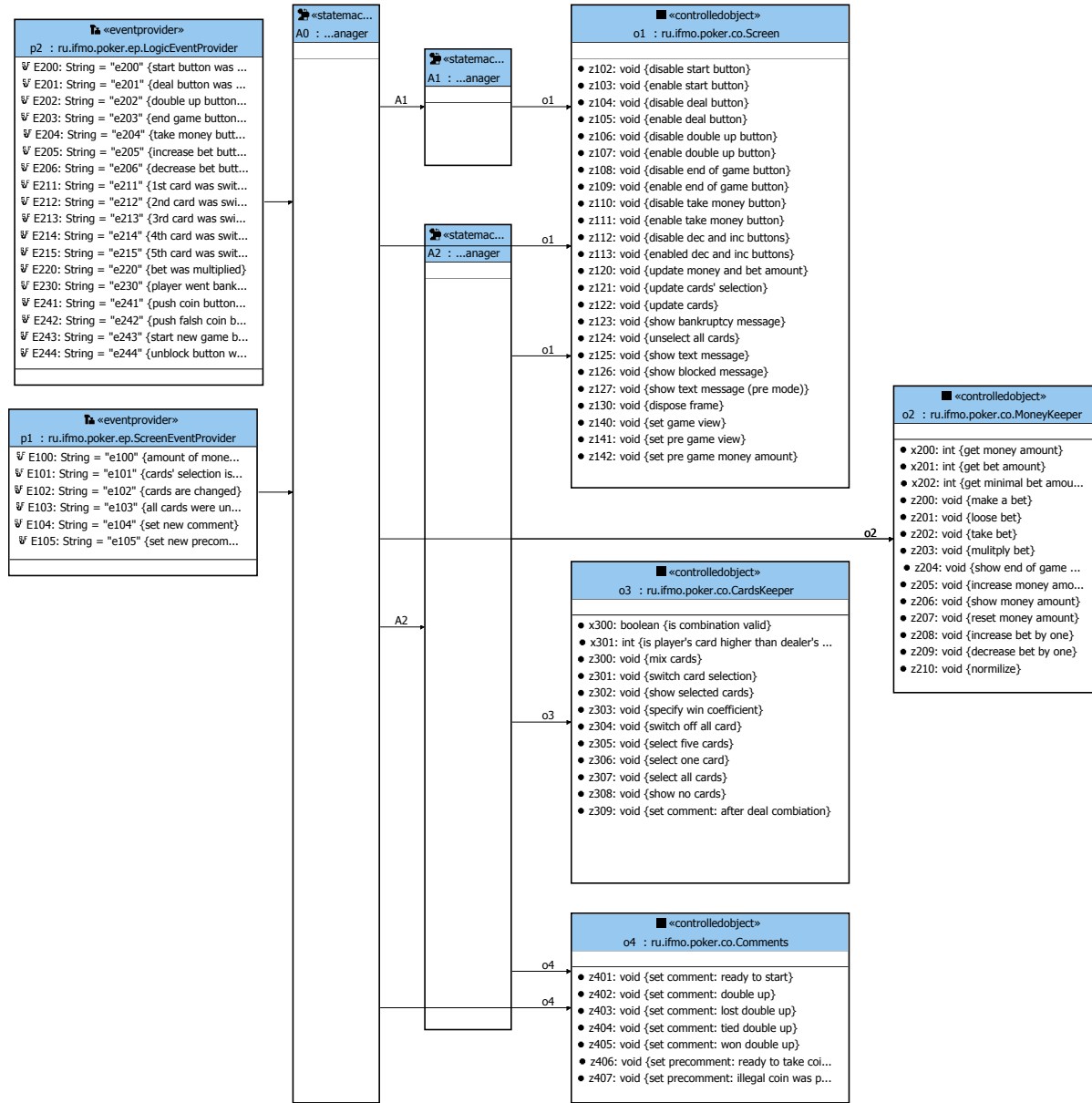
Fig. 7. Automata connectivity scheme

Two events providers are shown on left side of this scheme. Next layer consist of three automata. Automata's nesting is represented with arrow. Three controlled objects are shown on the right side of the scheme. Two of them form in addition to output actions input actions, which are delivers to one of automata.

3.1. Automat *A0*

This is the "main" automat in the program and has three states. Since one of the main tasks of the project is separating of "kernel" (logic of device controlling) and user interface (GUI), one of automats A0 states includes automata A1 and A2, which are responsible for GUI and "kernel" correspondingly.

3.1.1. States description

`Pushing money` – Gambler is pushing money into the device.
`Working` – Game process (this state includes automata *A1* and *A2*).
`Blocked` – The device is blocked.

3.1.2. Events description

`e100` – Amount of money pushed in the device has changed.
`e105` – Text message should be updated.
`e230` – All the money were lost.
`e241` – A coin has been pushed into the device.
`e242` – A false coin has been pushed into the device.
`e243` – Button «Start game» has been pressed.
`e244` – Unlocking button has been pressed.

3.1.3. List of output actions

`o1.z126` – Blocks the device.
`o1.z127` – Shows the text message before game start.
`o1.z141` – Switches to coin-pushing mode.
`o1.z142` – Sets money amount before the game.
`o2.z205` – Increments money amount.
`o2.z206` – Shows money amount.
`o2.z207` – Resets money amount.
`o4.z406` – Sets text comment about readiness to coin receiving.
`o4.z407` – Reports about false coin.

3.1.4. Transition graph of automat *A0*

Transition graph of automat *A0* is shown on fig. 8.
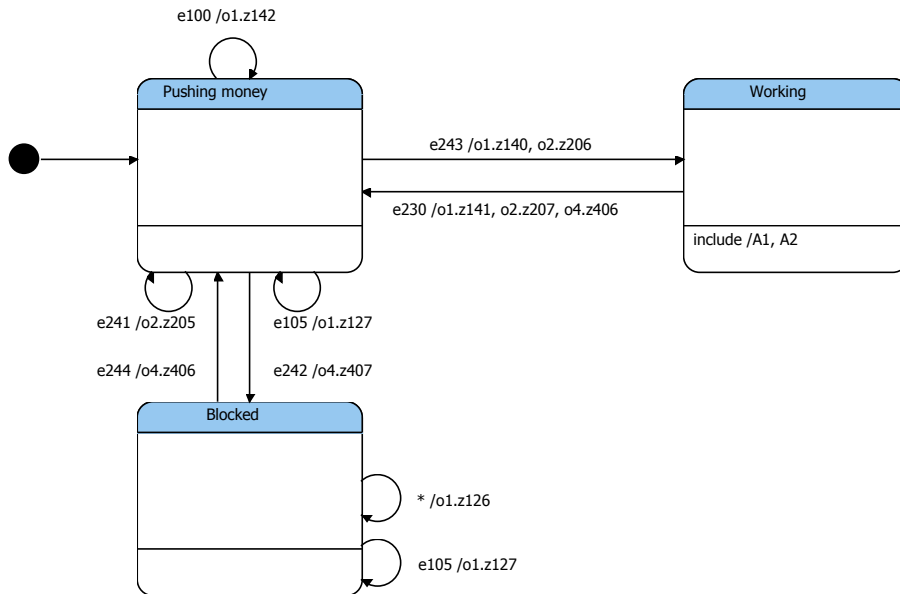
Fig. 8. Automat *A0*

3.2. Automat *A1*

This automat provides control over programs user interface (GUI).

3.2.1. States description

Since this automat is responsible only for GUI update, it has only one state (all necessary actions are executed by means of output actions on the selfloops).

3.2.2. Events description

e100 – Money amount or bet has been changed.
e101 – Gambler has chosen some cards.
e102 – Gambler has exchanged some cards.
e103 – No card is chosen.
e104 – Text message should be updated.

3.2.3. List of output actions

o1.z120 – Updates representation of bet and money amount.
o1.z121 – Updates state (chosen or not) of each card.
o1.z122 – Updates representation of each card.
o1.z123 – Shows text message if all money is lost.
o1.z124 – All cards are marked as not chosen.
o1.z125 – Updates text message.

3.2.4. Transition graph of automat *A1*

Transition graph of automat *A1* is shown on fig. 9.
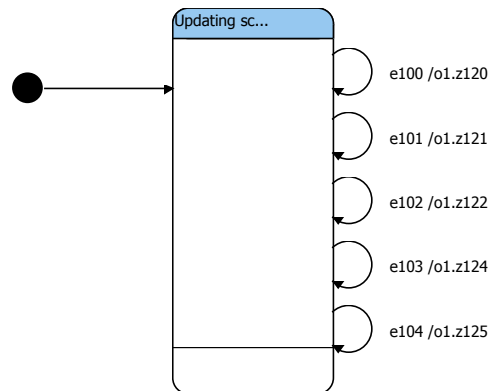
Fig. 9. Automat *A1*

3.3. Automat *A2*

This automat is responsible for the device control logic.

3.3.1. States description

Ready – The device is ready for next round.
Selecting cards – Gambler chooses cards.
Victory – Gambler has winning combination.
Doubling up – Gambler doubles up.
Defeat – Gambler has lost.
Bankruptcy – Gambler has played all the money over.
Taking money – Gambler takes the money.

3.3.2. Events description

e200 – Gambler starts the game.
e201 – Gambler has finished cards choosing.
e202 – Gambler has decided to double up.
e203 – Gambler has pressed "End of the game" button.
e204 – Gambler has decided to take the money.
e205 – Gambler has pressed "Increase bet" button.
e206 – Gambler has pressed "Decrease bet" button.
e211 – Gambler has chosen the card № 1.
e212 – Gambler has chosen the card № 2.
e213 – Gambler has chosen the card № 3.
e214 – Gambler has chosen the card № 4.

`e215` – Gambler has chosen the card № 5.
`e220` – Gambler has decided to double up.
`e230` – Gambler has played all the money over.

3.3.3. List of output actions

`o1.z102` – Disables "Start round» button.
`o1.z103` – Enables "Start round» button.
`o1.z104` – Disables "Double up" button.
`o1.z121` – Updates states (chosen or not) of each card.
`o1.z123` – Displays "Bankruptcy" message
`o2.z200` – Gambler makes a bet.
`o2.z203` – Increases bet.
`o2.z208` – Increments bet.
`o2.z209` – Decrements bet.
`o3.z300` – Shuffles the deck.
`o3.z301` – Changes state (chosen or not) of a card.
`o3.z302` – Shows chosen cards.
`o3.z303` – Count gambler's winning.
`o3.z304` – Makes all cards unchosen.
`o3.z305` – Gets five cards from the deck.
`o3.z306` – Gets one card from the deck.
`o3.z307` – Makes all cards chosen.
`o3.z308` – Hide all cards.
`o3.z309` – Display text message.

3.3.4. List of transition parameters

`o2.x200` – Returns gambler's money amount.
`o2.x201` – Returns bet amount.
`o3.x300` – Returns `true`, if gambler has winning combination, and `false` in the opposite case.
`o3.x301` – Returns 1, if value of gambler's card value is less than device's card value; zero if equal and –1 if greater.

3.3.5. Transitions graph of automat *A2*

Transition graph of automat *A2* is shown on fig.10.

e205[o2.x201 < o2.x200] /o2.z208   e206[o2.x201 > o2.x202] /o2.z209

Goods

e205[o2.x201 >= o2.x200]

e206[o2.x201 <= o2.x202]

Bankruptcy

e200[o2.x200<=0]

*

Taking mo...

e203[o2.x200>0] /o2.z210

e204

enter /o1.z123

enter /o2....

enter /o1.z103, o1.z104, o1.z...

e203[o2.x200<=0]

Defeat

e200[o2.x200>0] /o2.z200, o3.z300, o3.z305

enter /o1.z102, o1.z104, o1.z109, ...

Selecting cards

e201[!o3.x300] /o2.z201, o3.z309

e203 /o2.z202

Switcher

e211 /o3.z301

e212 /o3.z301

e213 /o3.z301

e214 /o3.z301

e215 /o3.z301

enter /o1.z102, o1.z105, o1.z106, ...

e201[o3.x300] /o3.z303, o3.z309

Doubling up

e202 /o3.z300, o3.z306, o4.z402

Victory

e212[o3.x301 > 0] /o2.z203, o3.z307, o4.z405

e212[o3.x301==0] /o3.z307, o4.z404

e213[o3.x301>0] /o2.z203, o3.z307, o4.z405

e213[o3.x301==0] /o3.z307, o4.z404

e214[o3.x301>0] /o2.z203, o3.z307, o4.z405

e214[o3.x301==0] /o3.z307, o4.z404

e215[o3.x301>0] /o2.z203, o3.z307, o4.z405

e215[o3.x301==0] /o3.z307, o4.z404

e215[o3.x301<0] /o2.z201, o3.z307, o4.z403

e214[o3.x301<0] /o2.z201, o3.z307, o4.z403

e213[o3.x301<0] /o2.z201, o3.z307, o4.z403

e212[o3.x301<0] /o2.z201, o3.z307, o4.z403

enter /o1.z102, o1.z104, o1.z106, ...

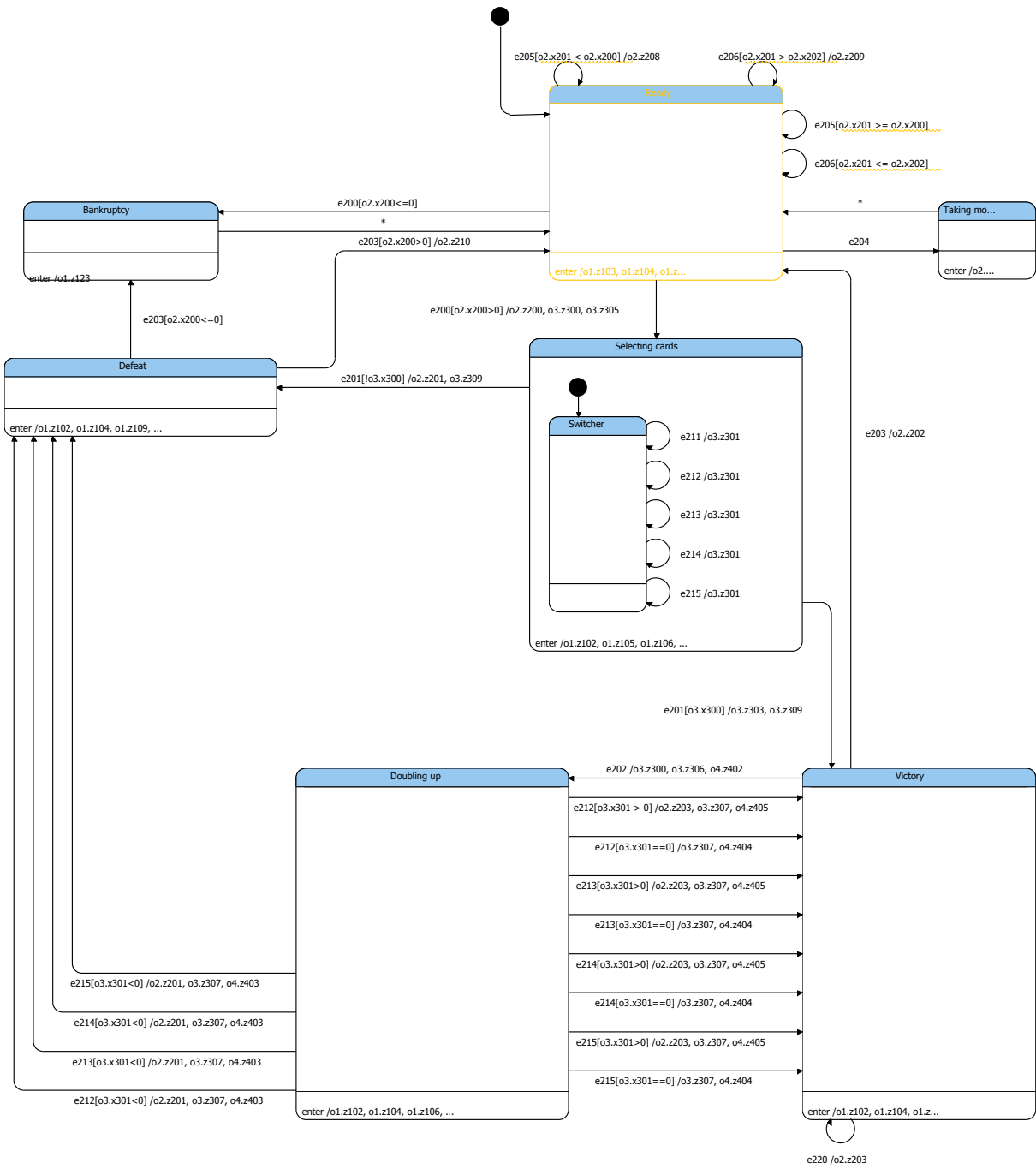enter /o1.z102, o1.z104, o1.z...

e220 /o2.z203

Fig. 10. Automat *A2*

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4. Controlled objects

4.1.   Controlled object *O1*

This controlled object represents user interface.

Description of object's methods

z102 – Disables "Start game" button.
z103 – Enables "Start game» button.
z104 – Disables "Deal" button.
z105 – Enables "Deal" button.
z106 – Disables "Double up" button.
z107 – Enables "Double up" button.
z108 – Disables "Finish game" button.
z109 – Enables "Finish game" button.
z110 – Disables "Take money" button.
z111 – Enables "Take money" button.
z120 – Updates representation of bet and money amount.
z121 – Updates representation of state (chosen or not) of each card.
z122 – Updates representation of each card.
z123 – Shows "Bankruptcy" message.
z124 – Represents all cards as not chosen.
z125 – Shows a text message.
z126 – Blocks the device.
z127 – Shows a text message before game start.
z130 – Closes the application.
z141 – Switches to coin-pushing mode
z142 – Sets money amount before game start.

4.2.   Controlled object *O2*

This object makes operations with money and bets.

Description of object's methods

x200 – Returns gambler's money amount.
x201 – Returns bet size.
x202 – Returns minimal bet size.
z200 – Gambler makes a bet.
z201 – Gambler plays the bet over.
z202 – Gambler takes money.
z203 – Increase bet.

z204 – End game.
z205 – Increment money amount.
z206 – Show money amount.
z207 – Reset money amount.
z208 – Increment bet.
z209 – Decrement bet.

4.3. Controlled object *O3*

This object makes operations with cards.

Description of object's methods

x300 – Returns true, if gambler has winning combination, and false in the opposite case.
x301 – Returns 1, if value of gambler's card value is less than device's card value; zero if equal and –1 if greater.
z300 – Shuffles the deck.
z301 – Changes state (chosen or not) of a card.
z302 – Shows chosen cards.
z303 – Count gambler's winning.
z304 – Makes all cards unchosen.
z305 – Gets five cards from the deck.
z306 – Gets one card from the deck.
z307 – Marks all cards as chosen.
z308 – Hide all cards.
z309 – Display text message.

4.4. Controlled object *O4*

This object is responsible for displaying comments, which explain course of the game to gambler.

Description of object's methods

z401 – Suggests starting game.
z402 – Comments doubling up.
z403 – Comments defeat at doubling up.
z404 – Comments draw at doubling up.
z405 – Comments victory at doubling up.
z406 – Comments device's readiness for coin-pushing.
z407 – Reports about false coin.

5. Two approaches to execution

Instrumental tool *Unimod* supports two approaches to program execution – interpretation and compilation.

In the first case (fig.11) XML-description of projected model is created (Appendix 2) and *java*-code of events providers and controlled objects is compiled (methods of input variables and output actions). The interpreter executes the application, using XML-description of the model and instances of complied classes. Interpretation approach is very convenient during application development because it allows running and debugging application in *Eclipse* environment. However, this approach also has essential drawback: XML-description and *Unimod* are necessary to run the application.
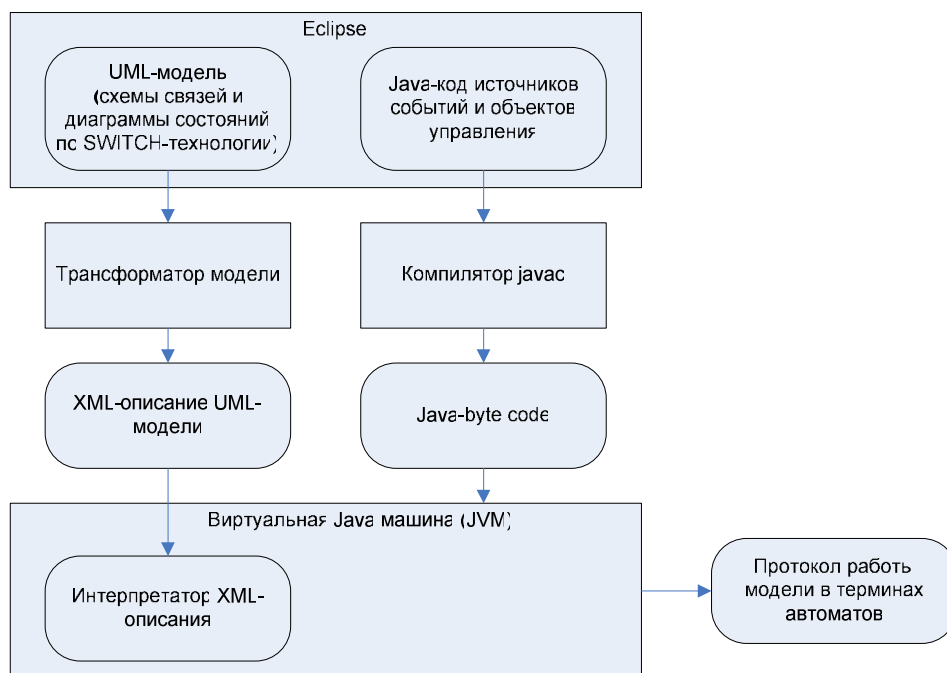
Fig. 11. Scheme of interpretation approach

Therefore, in our opinion, it is sensible to use interpretation approach at debug stage and get final version of application using compilation approach.

XML-description, mentioned above, is translated to *Java*-class (Appendix 3) at compilation approach (fig. 12). Then that class and classes which realize event providers and controlled objects are compiled in *Java*-application which independent from *Unimod*. Note that libraries provided together with *Unimod* are necessary to execute the compiled application.

Fig. 12. Scheme of compilation approach

In the both cases log is kept (Appendix 4). Automata states, events, input variables values, transitions and output actions are registered in this log.

Enclosure

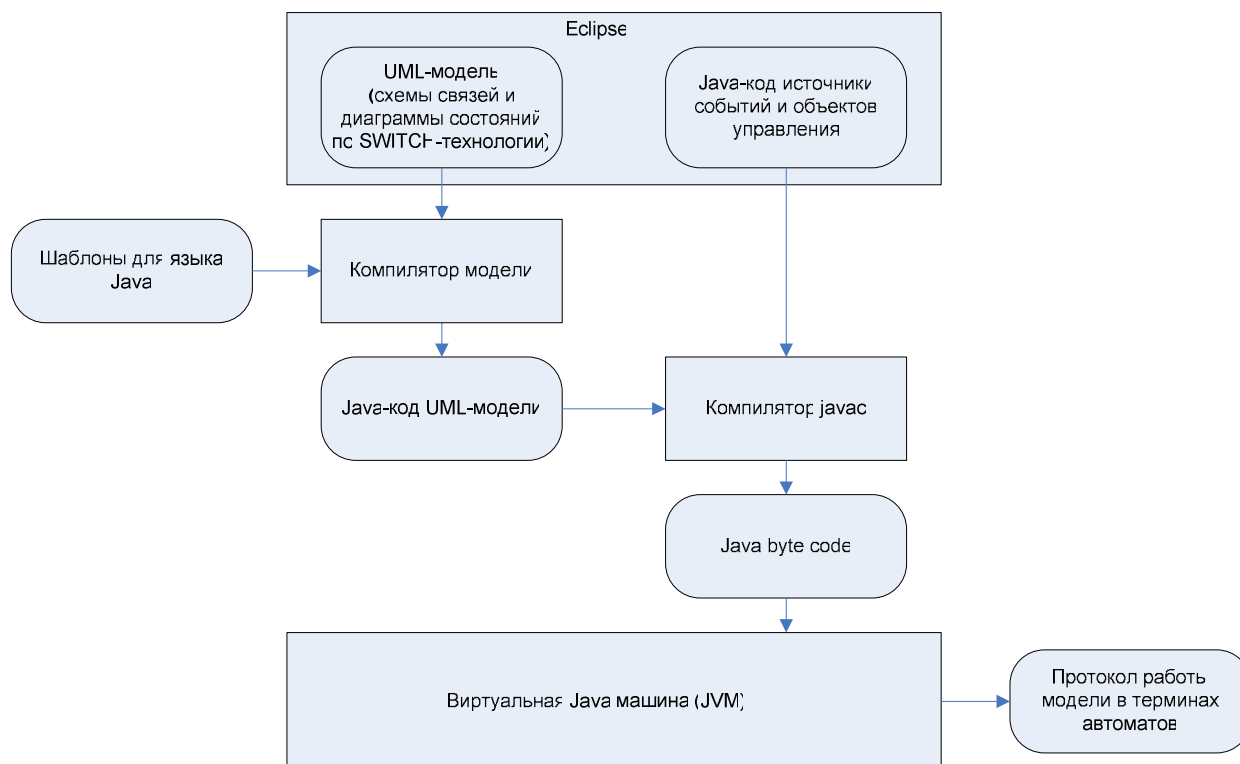*Unimod* proved to be convenient for projecting of work logic and interface of device: visual editor simplifies construction of automata for projected system, furthermore – possibility to interpret or translate in *Java*-code projected diagrams allows not to waste time for realizing automata in theirself. *HTML*-formatted source codes can be found in appendix.

Annotation (in Russian and English), this documentation (in Russian and English), source codes and application itself are placed on the site http://is.ifmo.ru/unimod-projects/poker/.

Источники

1. http://is.ifmo.ru/projects/
2. *Unimod*. http://unimod.sourceforge.net/intro.html
3. IDE *Eclipse*. http://www.eclipse.org/
4. *Хопкрофт Д., Мотвани Р., Ульман Д.* Введение в теорию автоматов, языков и вычислений. М.: Вильямс, 2002.

Appendix 1. Source codes written manually

1. Event providers

```
// Class realizes provider of events, which are provided by
// application
LogicEventProvider.java
```

```
// Class realizes provider of events, which are provided by user
ScreenEventProvider.java
```

2. Controlled object

```
// Class realizes "Application window" controlled object
Screen.java
```

```
// Class realizes controlled object, which is responsible for
// gambler's money
MoneyKeeper.java
```

```
// Class realizes controlled object, which is responsible for
// gambler's cards
CardsKeeper.java
```

```
// Class realizes "Comments panel" controlled object
Comments.java
```

3. Auxiliary classes

```
// Class realizes application window
ScreenModel.java
```

```
// Class realizes card
Card.java
```

```
// Class realizes winning combinations checking
Checker.java
```

```
// Class is responsible for application start at complilation
// approach
Start.java
```

Appendix 2. Interpretation. Automatically generated using connectivity scheme and transition graphs XML-description of application

```
pokerMachine.unimod
```

Appendix 3. Compilation. Automatically generated using connectivity scheme and transition graphs *Java*-codes

Model1EventProcessor.java
AutomataEngine.java

Appendix 4. Log example

Log for following sequence of actions is presented:
- gambler pushed three coins into device;
- gambler started the game;
- gambler increased bet to two coins;
- gambler played one game;
- gambler took the money.

```
17:53:06,385 INFO  [Run] Start event [e241] processing. In state [/A0:Top]
17:53:06,385 INFO  [Run] Transition to go found [s1#Pushing money##true]
17:53:06,385 DEBUG [Run] Try transition [Pushing money#Pushing money#e241#true]
17:53:06,385 INFO  [Run] Transition to go found [Pushing money#Pushing
money#e241#true]
17:53:06,385 INFO  [Run] Start output action [o2.z205] execution
17:53:06,395 INFO  [Run] Finish output action [o2.z205] execution
17:53:06,395 INFO  [Run] Finish event [e241] processing. In state [/A0:Pushing
money]
17:53:06,395 INFO  [Run] Start event [e100] processing. In state [/A0:Pushing
money]
17:53:06,395 DEBUG [Run] Try transition [Pushing money#Pushing money#e100#true]
17:53:06,395 INFO  [Run] Transition to go found [Pushing money#Pushing
money#e100#true]
17:53:06,395 INFO  [Run] Start output action [o1.z142] execution
17:53:06,395 INFO  [Run] Finish output action [o1.z142] execution
17:53:06,395 INFO  [Run] Finish event [e100] processing. In state [/A0:Pushing
money]
17:53:06,725 INFO  [Run] Start event [e241] processing. In state [/A0:Pushing
money]
17:53:06,725 DEBUG [Run] Try transition [Pushing money#Pushing money#e241#true]
17:53:06,725 INFO  [Run] Transition to go found [Pushing money#Pushing
money#e241#true]
17:53:06,725 INFO  [Run] Start output action [o2.z205] execution
17:53:06,725 INFO  [Run] Finish output action [o2.z205] execution
17:53:06,725 INFO  [Run] Finish event [e241] processing. In state [/A0:Pushing
money]
17:53:06,725 INFO  [Run] Start event [e100] processing. In state [/A0:Pushing
money]
17:53:06,725 DEBUG [Run] Try transition [Pushing money#Pushing money#e100#true]
17:53:06,725 INFO  [Run] Transition to go found [Pushing money#Pushing
money#e100#true]
17:53:06,725 INFO  [Run] Start output action [o1.z142] execution
17:53:06,725 INFO  [Run] Finish output action [o1.z142] execution
17:53:06,725 INFO  [Run] Finish event [e100] processing. In state [/A0:Pushing
money]
17:53:07,076 INFO  [Run] Start event [e241] processing. In state [/A0:Pushing
money]
17:53:07,076 DEBUG [Run] Try transition [Pushing money#Pushing money#e241#true]
```

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17:53:07,076 INFO  [Run] Transition to go found [Pushing money#Pushing
money#e241#true]
17:53:07,076 INFO  [Run] Start output action [o2.z205] execution
17:53:07,076 INFO  [Run] Finish output action [o2.z205] execution
17:53:07,076 INFO  [Run] Finish event [e241] processing. In state [/A0:Pushing
money]
17:53:07,076 INFO  [Run] Start event [e100] processing. In state [/A0:Pushing
money]
17:53:07,076 DEBUG [Run] Try transition [Pushing money#Pushing money#e100#true]
17:53:07,076 INFO  [Run] Transition to go found [Pushing money#Pushing
money#e100#true]
17:53:07,076 INFO  [Run] Start output action [o1.z142] execution
17:53:07,076 INFO  [Run] Finish output action [o1.z142] execution
17:53:07,076 INFO  [Run] Finish event [e100] processing. In state [/A0:Pushing
money]
17:53:08,067 INFO  [Run] Start event [e243] processing. In state [/A0:Pushing
money]
17:53:08,067 DEBUG [Run] Try transition [Pushing money#Working#e243#true]
17:53:08,067 INFO  [Run] Transition to go found [Pushing money#Working#e243#true]
17:53:08,067 INFO  [Run] Start output action [o1.z140] execution
17:53:08,167 INFO  [Run] Finish output action [o1.z140] execution
17:53:08,167 INFO  [Run] Start output action [o2.z206] execution
17:53:08,167 INFO  [Run] Finish output action [o2.z206] execution
17:53:08,167 INFO  [Run] Start event [e243] processing. In state
[/A0:Working/A1:Top]
17:53:08,167 INFO  [Run] Transition to go found [s1#Updating screen##true]
17:53:08,167 INFO  [Run] Finish event [e243] processing. In state
[/A0:Working/A1:Updating screen]
17:53:08,167 INFO  [Run] Start event [e243] processing. In state
[/A0:Working/A2:Top]
17:53:08,167 INFO  [Run] Transition to go found [s1#Ready##true]
17:53:08,167 INFO  [Run] Start on-enter action [o1.z103] execution
17:53:08,167 INFO  [Run] Finish on-enter action [o1.z103] execution
17:53:08,167 INFO  [Run] Start on-enter action [o1.z104] execution
17:53:08,167 INFO  [Run] Finish on-enter action [o1.z104] execution
17:53:08,167 INFO  [Run] Start on-enter action [o1.z106] execution
17:53:08,177 INFO  [Run] Finish on-enter action [o1.z106] execution
17:53:08,177 INFO  [Run] Start on-enter action [o1.z108] execution
17:53:08,177 INFO  [Run] Finish on-enter action [o1.z108] execution
17:53:08,177 INFO  [Run] Start on-enter action [o1.z111] execution
17:53:08,177 INFO  [Run] Finish on-enter action [o1.z111] execution
17:53:08,177 INFO  [Run] Start on-enter action [o1.z113] execution
17:53:08,177 INFO  [Run] Finish on-enter action [o1.z113] execution
17:53:08,177 INFO  [Run] Start on-enter action [o3.z304] execution
17:53:08,177 INFO  [Run] Finish on-enter action [o3.z304] execution
17:53:08,177 INFO  [Run] Start on-enter action [o3.z308] execution
17:53:08,177 INFO  [Run] Finish on-enter action [o3.z308] execution
17:53:08,177 INFO  [Run] Start on-enter action [o4.z401] execution
17:53:08,177 INFO  [Run] Finish on-enter action [o4.z401] execution
17:53:08,177 INFO  [Run] Finish event [e243] processing. In state
[/A0:Working/A2:Ready]
17:53:08,177 INFO  [Run] Finish event [e243] processing. In state [/A0:Working]
17:53:08,177 INFO  [Run] Start event [e100] processing. In state [/A0:Working]
17:53:08,177 INFO  [Run] Start event [e100] processing. In state
[/A0:Working/A1:Updating screen]
17:53:08,177 DEBUG [Run] Try transition [Updating screen#Updating screen#e100#true]
17:53:08,177 INFO  [Run] Transition to go found [Updating screen#Updating
screen#e100#true]
17:53:08,177 INFO  [Run] Start output action [o1.z120] execution
17:53:08,177 INFO  [Run] Finish output action [o1.z120] execution
17:53:08,177 INFO  [Run] Finish event [e100] processing. In state
[/A0:Working/A1:Updating screen]
17:53:08,177 INFO  [Run] Start event [e100] processing. In state
[/A0:Working/A2:Ready]
```

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17:53:08,177 INFO  [Run] Finish event [e100] processing. In state
[/A0:Working/A2:Ready]
17:53:08,177 INFO  [Run] Finish event [e100] processing. In state [/A0:Working]
17:53:08,177 INFO  [Run] Start event [e103] processing. In state [/A0:Working]
17:53:08,177 INFO  [Run] Start event [e103] processing. In state
[/A0:Working/A1:Updating screen]
17:53:08,177 DEBUG [Run] Try transition [Updating screen#Updating screen#e103#true]
17:53:08,177 INFO  [Run] Transition to go found [Updating screen#Updating
screen#e103#true]
17:53:08,177 INFO  [Run] Start output action [o1.z124] execution
17:53:08,177 INFO  [Run] Finish output action [o1.z124] execution
17:53:08,177 INFO  [Run] Finish event [e103] processing. In state
[/A0:Working/A1:Updating screen]
17:53:08,177 INFO  [Run] Start event [e103] processing. In state
[/A0:Working/A2:Ready]
17:53:08,177 INFO  [Run] Finish event [e103] processing. In state
[/A0:Working/A2:Ready]
17:53:08,177 INFO  [Run] Finish event [e103] processing. In state [/A0:Working]
17:53:08,177 INFO  [Run] Start event [e102] processing. In state [/A0:Working]
17:53:08,177 INFO  [Run] Start event [e102] processing. In state
[/A0:Working/A1:Updating screen]
17:53:08,177 DEBUG [Run] Try transition [Updating screen#Updating screen#e102#true]
17:53:08,177 INFO  [Run] Transition to go found [Updating screen#Updating
screen#e102#true]
17:53:08,177 INFO  [Run] Start output action [o1.z122] execution
17:53:08,187 INFO  [Run] Finish output action [o1.z122] execution
17:53:08,187 INFO  [Run] Finish event [e102] processing. In state
[/A0:Working/A1:Updating screen]
17:53:08,187 INFO  [Run] Start event [e102] processing. In state
[/A0:Working/A2:Ready]
17:53:08,187 INFO  [Run] Finish event [e102] processing. In state
[/A0:Working/A2:Ready]
17:53:08,187 INFO  [Run] Finish event [e102] processing. In state [/A0:Working]
17:53:08,187 INFO  [Run] Start event [e104] processing. In state [/A0:Working]
17:53:08,187 INFO  [Run] Start event [e104] processing. In state
[/A0:Working/A1:Updating screen]
17:53:08,187 DEBUG [Run] Try transition [Updating screen#Updating screen#e104#true]
17:53:08,187 INFO  [Run] Transition to go found [Updating screen#Updating
screen#e104#true]
17:53:08,187 INFO  [Run] Start output action [o1.z125] execution
17:53:08,187 INFO  [Run] Finish output action [o1.z125] execution
17:53:08,187 INFO  [Run] Finish event [e104] processing. In state
[/A0:Working/A1:Updating screen]
17:53:08,187 INFO  [Run] Start event [e104] processing. In state
[/A0:Working/A2:Ready]
17:53:08,187 INFO  [Run] Finish event [e104] processing. In state
[/A0:Working/A2:Ready]
17:53:08,187 INFO  [Run] Finish event [e104] processing. In state [/A0:Working]
17:53:10,290 INFO  [Run] Start event [e205] processing. In state [/A0:Working]
17:53:10,290 INFO  [Run] Start event [e205] processing. In state
[/A0:Working/A1:Updating screen]
17:53:10,290 INFO  [Run] Finish event [e205] processing. In state
[/A0:Working/A1:Updating screen]
17:53:10,290 INFO  [Run] Start event [e205] processing. In state
[/A0:Working/A2:Ready]
17:53:10,290 DEBUG [Run] Try transition [Ready#Ready#e205#o2.x201 < o2.x200]
17:53:10,290 INFO  [Run] Start input action [o2.x201] calculation
17:53:10,290 INFO  [Run] Finish input action [o2.x201] calculation. Its value is
[1]
17:53:10,290 INFO  [Run] Start input action [o2.x200] calculation
17:53:10,290 INFO  [Run] Finish input action [o2.x200] calculation. Its value is
[3]
17:53:10,290 INFO  [Run] Transition to go found [Ready#Ready#e205#o2.x201 <
o2.x200]
```

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17:53:10,290 INFO   [Run] Start output action [o2.z208] execution
17:53:10,290 INFO   [Run] Finish output action [o2.z208] execution
17:53:10,290 INFO   [Run] Start on-enter action [o1.z103] execution
17:53:10,290 INFO   [Run] Finish on-enter action [o1.z103] execution
17:53:10,290 INFO   [Run] Start on-enter action [o1.z104] execution
17:53:10,290 INFO   [Run] Finish on-enter action [o1.z104] execution
17:53:10,290 INFO   [Run] Start on-enter action [o1.z106] execution
17:53:10,290 INFO   [Run] Finish on-enter action [o1.z106] execution
17:53:10,290 INFO   [Run] Start on-enter action [o1.z108] execution
17:53:10,290 INFO   [Run] Finish on-enter action [o1.z108] execution
17:53:10,290 INFO   [Run] Start on-enter action [o1.z111] execution
17:53:10,290 INFO   [Run] Finish on-enter action [o1.z111] execution
17:53:10,290 INFO   [Run] Start on-enter action [o1.z113] execution
17:53:10,290 INFO   [Run] Finish on-enter action [o1.z113] execution
17:53:10,290 INFO   [Run] Start on-enter action [o3.z304] execution
17:53:10,290 INFO   [Run] Finish on-enter action [o3.z304] execution
17:53:10,290 INFO   [Run] Start on-enter action [o3.z308] execution
17:53:10,290 INFO   [Run] Finish on-enter action [o3.z308] execution
17:53:10,290 INFO   [Run] Start on-enter action [o4.z401] execution
17:53:10,290 INFO   [Run] Finish on-enter action [o4.z401] execution
17:53:10,290 INFO   [Run] Finish event [e205] processing. In state
[/A0:Working/A2:Ready]
17:53:10,290 INFO   [Run] Finish event [e205] processing. In state [/A0:Working]
17:53:10,290 INFO   [Run] Start event [e100] processing. In state [/A0:Working]
17:53:10,290 INFO   [Run] Start event [e100] processing. In state
[/A0:Working/A1:Updating screen]
17:53:10,290 DEBUG [Run] Try transition [Updating screen#Updating screen#e100#true]
17:53:10,290 INFO   [Run] Transition to go found [Updating screen#Updating
screen#e100#true]
17:53:10,290 INFO   [Run] Start output action [o1.z120] execution
17:53:10,290 INFO   [Run] Finish output action [o1.z120] execution
17:53:10,290 INFO   [Run] Finish event [e100] processing. In state
[/A0:Working/A1:Updating screen]
17:53:10,290 INFO   [Run] Start event [e100] processing. In state
[/A0:Working/A2:Ready]
17:53:10,290 INFO   [Run] Finish event [e100] processing. In state
[/A0:Working/A2:Ready]
17:53:10,290 INFO   [Run] Finish event [e100] processing. In state [/A0:Working]
17:53:10,290 INFO   [Run] Start event [e103] processing. In state [/A0:Working]
17:53:10,290 INFO   [Run] Start event [e103] processing. In state
[/A0:Working/A1:Updating screen]
17:53:10,290 DEBUG [Run] Try transition [Updating screen#Updating screen#e103#true]
17:53:10,290 INFO   [Run] Transition to go found [Updating screen#Updating
screen#e103#true]
17:53:10,290 INFO   [Run] Start output action [o1.z124] execution
17:53:10,290 INFO   [Run] Finish output action [o1.z124] execution
17:53:10,290 INFO   [Run] Finish event [e103] processing. In state
[/A0:Working/A1:Updating screen]
17:53:10,290 INFO   [Run] Start event [e103] processing. In state
[/A0:Working/A2:Ready]
17:53:10,300 INFO   [Run] Finish event [e103] processing. In state
[/A0:Working/A2:Ready]
17:53:10,300 INFO   [Run] Finish event [e103] processing. In state [/A0:Working]
17:53:10,300 INFO   [Run] Start event [e102] processing. In state [/A0:Working]
17:53:10,300 INFO   [Run] Start event [e102] processing. In state
[/A0:Working/A1:Updating screen]
17:53:10,300 DEBUG [Run] Try transition [Updating screen#Updating screen#e102#true]
17:53:10,300 INFO   [Run] Transition to go found [Updating screen#Updating
screen#e102#true]
17:53:10,300 INFO   [Run] Start output action [o1.z122] execution
17:53:10,300 INFO   [Run] Finish output action [o1.z122] execution
17:53:10,300 INFO   [Run] Finish event [e102] processing. In state
[/A0:Working/A1:Updating screen]
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17:53:10,300 INFO  [Run] Start event [e102] processing. In state
[/A0:Working/A2:Ready]
17:53:10,300 INFO  [Run] Finish event [e102] processing. In state
[/A0:Working/A2:Ready]
17:53:10,300 INFO  [Run] Finish event [e102] processing. In state [/A0:Working]
17:53:10,300 INFO  [Run] Start event [e104] processing. In state [/A0:Working]
17:53:10,300 INFO  [Run] Start event [e104] processing. In state
[/A0:Working/A1:Updating screen]
17:53:10,300 DEBUG [Run] Try transition [Updating screen#Updating screen#e104#true]
17:53:10,300 INFO  [Run] Transition to go found [Updating screen#Updating
screen#e104#true]
17:53:10,300 INFO  [Run] Start output action [o1.z125] execution
17:53:10,300 INFO  [Run] Finish output action [o1.z125] execution
17:53:10,300 INFO  [Run] Finish event [e104] processing. In state
[/A0:Working/A1:Updating screen]
17:53:10,300 INFO  [Run] Start event [e104] processing. In state
[/A0:Working/A2:Ready]
17:53:10,300 INFO  [Run] Finish event [e104] processing. In state
[/A0:Working/A2:Ready]
17:53:10,300 INFO  [Run] Finish event [e104] processing. In state [/A0:Working]
17:53:12,844 INFO  [Run] Start event [e200] processing. In state [/A0:Working]
17:53:12,844 INFO  [Run] Start event [e200] processing. In state
[/A0:Working/A1:Updating screen]
17:53:12,844 INFO  [Run] Finish event [e200] processing. In state
[/A0:Working/A1:Updating screen]
17:53:12,844 INFO  [Run] Start event [e200] processing. In state
[/A0:Working/A2:Ready]
17:53:12,844 DEBUG [Run] Try transition [Ready#Selecting cards#e200#o2.x200>0]
17:53:12,844 INFO  [Run] Start input action [o2.x200] calculation
17:53:12,844 INFO  [Run] Finish input action [o2.x200] calculation. Its value is
[3]
17:53:12,844 INFO  [Run] Transition to go found [Ready#Selecting
cards#e200#o2.x200>0]
17:53:12,844 INFO  [Run] Start output action [o2.z200] execution
17:53:12,844 INFO  [Run] Finish output action [o2.z200] execution
17:53:12,844 INFO  [Run] Start output action [o3.z300] execution
17:53:12,844 INFO  [Run] Finish output action [o3.z300] execution
17:53:12,844 INFO  [Run] Start output action [o3.z305] execution
17:53:12,904 INFO  [Run] Finish output action [o3.z305] execution
17:53:12,904 INFO  [Run] Start on-enter action [o1.z102] execution
17:53:12,914 INFO  [Run] Finish on-enter action [o1.z102] execution
17:53:12,914 INFO  [Run] Start on-enter action [o1.z105] execution
17:53:12,924 INFO  [Run] Finish on-enter action [o1.z105] execution
17:53:12,924 INFO  [Run] Start on-enter action [o1.z106] execution
17:53:12,924 INFO  [Run] Finish on-enter action [o1.z106] execution
17:53:12,924 INFO  [Run] Start on-enter action [o1.z108] execution
17:53:12,924 INFO  [Run] Finish on-enter action [o1.z108] execution
17:53:12,924 INFO  [Run] Start on-enter action [o1.z110] execution
17:53:12,924 INFO  [Run] Finish on-enter action [o1.z110] execution
17:53:12,924 INFO  [Run] Start on-enter action [o1.z112] execution
17:53:12,924 INFO  [Run] Finish on-enter action [o1.z112] execution
17:53:12,924 INFO  [Run] Start on-enter action [o3.z304] execution
17:53:12,924 INFO  [Run] Finish on-enter action [o3.z304] execution
17:53:12,924 INFO  [Run] Transition to go found [s2#Switcher##true]
17:53:12,924 INFO  [Run] Finish event [e200] processing. In state
[/A0:Working/A2:Switcher]
17:53:12,934 INFO  [Run] Finish event [e200] processing. In state [/A0:Working]
17:53:12,934 INFO  [Run] Start event [e100] processing. In state [/A0:Working]
17:53:12,934 INFO  [Run] Start event [e100] processing. In state
[/A0:Working/A1:Updating screen]
17:53:12,934 DEBUG [Run] Try transition [Updating screen#Updating screen#e100#true]
17:53:12,934 INFO  [Run] Transition to go found [Updating screen#Updating
screen#e100#true]
17:53:12,934 INFO  [Run] Start output action [o1.z120] execution
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17:53:12,934 INFO  [Run] Finish output action [o1.z120] execution
17:53:12,934 INFO  [Run] Finish event [e100] processing. In state
[/A0:Working/A1:Updating screen]
17:53:12,934 INFO  [Run] Start event [e100] processing. In state
[/A0:Working/A2:Switcher]
17:53:12,934 INFO  [Run] Finish event [e100] processing. In state
[/A0:Working/A2:Switcher]
17:53:12,934 INFO  [Run] Finish event [e100] processing. In state [/A0:Working]
17:53:12,934 INFO  [Run] Start event [e102] processing. In state [/A0:Working]
17:53:12,934 INFO  [Run] Start event [e102] processing. In state
[/A0:Working/A1:Updating screen]
17:53:12,934 DEBUG [Run] Try transition [Updating screen#Updating screen#e102#true]
17:53:12,934 INFO  [Run] Transition to go found [Updating screen#Updating
screen#e102#true]
17:53:12,934 INFO  [Run] Start output action [o1.z122] execution
17:53:13,024 INFO  [Run] Finish output action [o1.z122] execution
17:53:13,024 INFO  [Run] Finish event [e102] processing. In state
[/A0:Working/A1:Updating screen]
17:53:13,024 INFO  [Run] Start event [e102] processing. In state
[/A0:Working/A2:Switcher]
17:53:13,024 INFO  [Run] Finish event [e102] processing. In state
[/A0:Working/A2:Switcher]
17:53:13,024 INFO  [Run] Finish event [e102] processing. In state [/A0:Working]
17:53:13,024 INFO  [Run] Start event [e104] processing. In state [/A0:Working]
17:53:13,024 INFO  [Run] Start event [e104] processing. In state
[/A0:Working/A1:Updating screen]
17:53:13,024 DEBUG [Run] Try transition [Updating screen#Updating screen#e104#true]
17:53:13,024 INFO  [Run] Transition to go found [Updating screen#Updating
screen#e104#true]
17:53:13,024 INFO  [Run] Start output action [o1.z125] execution
17:53:13,024 INFO  [Run] Finish output action [o1.z125] execution
17:53:13,024 INFO  [Run] Finish event [e104] processing. In state
[/A0:Working/A1:Updating screen]
17:53:13,024 INFO  [Run] Start event [e104] processing. In state
[/A0:Working/A2:Switcher]
17:53:13,024 INFO  [Run] Finish event [e104] processing. In state
[/A0:Working/A2:Switcher]
17:53:13,024 INFO  [Run] Finish event [e104] processing. In state [/A0:Working]
17:53:13,024 INFO  [Run] Start event [e103] processing. In state [/A0:Working]
17:53:13,024 INFO  [Run] Start event [e103] processing. In state
[/A0:Working/A1:Updating screen]
17:53:13,024 DEBUG [Run] Try transition [Updating screen#Updating screen#e103#true]
17:53:13,024 INFO  [Run] Transition to go found [Updating screen#Updating
screen#e103#true]
17:53:13,024 INFO  [Run] Start output action [o1.z124] execution
17:53:13,024 INFO  [Run] Finish output action [o1.z124] execution
17:53:13,024 INFO  [Run] Finish event [e103] processing. In state
[/A0:Working/A1:Updating screen]
17:53:13,024 INFO  [Run] Start event [e103] processing. In state
[/A0:Working/A2:Switcher]
17:53:13,024 INFO  [Run] Finish event [e103] processing. In state
[/A0:Working/A2:Switcher]
17:53:13,024 INFO  [Run] Finish event [e103] processing. In state [/A0:Working]
17:53:15,688 INFO  [Run] Start event [e213] processing. In state [/A0:Working]
17:53:15,688 INFO  [Run] Start event [e213] processing. In state
[/A0:Working/A1:Updating screen]
17:53:15,688 INFO  [Run] Finish event [e213] processing. In state
[/A0:Working/A1:Updating screen]
17:53:15,688 INFO  [Run] Start event [e213] processing. In state
[/A0:Working/A2:Switcher]
17:53:15,688 DEBUG [Run] Try transition [Switcher#Switcher#e213#true]
17:53:15,698 INFO  [Run] Transition to go found [Switcher#Switcher#e213#true]
17:53:15,698 INFO  [Run] Start output action [o3.z301] execution
17:53:15,698 INFO  [Run] Finish output action [o3.z301] execution
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17:53:15,698 INFO  [Run] Finish event [e213] processing. In state
[/A0:Working/A2:Switcher]
17:53:15,698 INFO  [Run] Finish event [e213] processing. In state [/A0:Working]
17:53:15,698 INFO  [Run] Start event [e101] processing. In state [/A0:Working]
17:53:15,698 INFO  [Run] Start event [e101] processing. In state
[/A0:Working/A1:Updating screen]
17:53:15,698 DEBUG [Run] Try transition [Updating screen#Updating screen#e101#true]
17:53:15,698 INFO  [Run] Transition to go found [Updating screen#Updating
screen#e101#true]
17:53:15,698 INFO  [Run] Start output action [o1.z121] execution
17:53:15,698 INFO  [Run] Finish output action [o1.z121] execution
17:53:15,698 INFO  [Run] Finish event [e101] processing. In state
[/A0:Working/A1:Updating screen]
17:53:15,698 INFO  [Run] Start event [e101] processing. In state
[/A0:Working/A2:Switcher]
17:53:15,698 INFO  [Run] Finish event [e101] processing. In state
[/A0:Working/A2:Switcher]
17:53:15,698 INFO  [Run] Finish event [e101] processing. In state [/A0:Working]
17:53:16,419 INFO  [Run] Start event [e214] processing. In state [/A0:Working]
17:53:16,419 INFO  [Run] Start event [e214] processing. In state
[/A0:Working/A1:Updating screen]
17:53:16,419 INFO  [Run] Finish event [e214] processing. In state
[/A0:Working/A1:Updating screen]
17:53:16,419 INFO  [Run] Start event [e214] processing. In state
[/A0:Working/A2:Switcher]
17:53:16,419 DEBUG [Run] Try transition [Switcher#Switcher#e214#true]
17:53:16,419 INFO  [Run] Transition to go found [Switcher#Switcher#e214#true]
17:53:16,419 INFO  [Run] Start output action [o3.z301] execution
17:53:16,419 INFO  [Run] Finish output action [o3.z301] execution
17:53:16,419 INFO  [Run] Finish event [e214] processing. In state
[/A0:Working/A2:Switcher]
17:53:16,419 INFO  [Run] Finish event [e214] processing. In state [/A0:Working]
17:53:16,419 INFO  [Run] Start event [e101] processing. In state [/A0:Working]
17:53:16,419 INFO  [Run] Start event [e101] processing. In state
[/A0:Working/A1:Updating screen]
17:53:16,419 DEBUG [Run] Try transition [Updating screen#Updating screen#e101#true]
17:53:16,419 INFO  [Run] Transition to go found [Updating screen#Updating
screen#e101#true]
17:53:16,419 INFO  [Run] Start output action [o1.z121] execution
17:53:16,419 INFO  [Run] Finish output action [o1.z121] execution
17:53:16,419 INFO  [Run] Finish event [e101] processing. In state
[/A0:Working/A1:Updating screen]
17:53:16,419 INFO  [Run] Start event [e101] processing. In state
[/A0:Working/A2:Switcher]
17:53:16,419 INFO  [Run] Finish event [e101] processing. In state
[/A0:Working/A2:Switcher]
17:53:16,419 INFO  [Run] Finish event [e101] processing. In state [/A0:Working]
17:53:18,011 INFO  [Run] Start event [e201] processing. In state [/A0:Working]
17:53:18,011 INFO  [Run] Start event [e201] processing. In state
[/A0:Working/A1:Updating screen]
17:53:18,011 INFO  [Run] Finish event [e201] processing. In state
[/A0:Working/A1:Updating screen]
17:53:18,011 INFO  [Run] Start event [e201] processing. In state
[/A0:Working/A2:Switcher]
17:53:18,011 DEBUG [Run] Try transition [Selecting cards#Victory#e201#o3.x300]
17:53:18,011 INFO  [Run] Start input action [o3.x300] calculation
17:53:18,011 INFO  [Run] Finish input action [o3.x300] calculation. Its value is
[false]
17:53:18,011 DEBUG [Run] Try transition [Selecting cards#Defeat#e201#!o3.x300]
17:53:18,011 INFO  [Run] Transition to go found [Selecting
cards#Defeat#e201#!o3.x300]
17:53:18,011 INFO  [Run] Start output action [o2.z201] execution
17:53:18,011 INFO  [Run] Finish output action [o2.z201] execution
17:53:18,011 INFO  [Run] Start output action [o3.z309] execution
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17:53:18,011 INFO  [Run] Finish output action [o3.z309] execution
17:53:18,011 INFO  [Run] Start on-enter action [o1.z102] execution
17:53:18,011 INFO  [Run] Finish on-enter action [o1.z102] execution
17:53:18,011 INFO  [Run] Start on-enter action [o1.z104] execution
17:53:18,021 INFO  [Run] Finish on-enter action [o1.z104] execution
17:53:18,021 INFO  [Run] Start on-enter action [o1.z109] execution
17:53:18,021 INFO  [Run] Finish on-enter action [o1.z109] execution
17:53:18,021 INFO  [Run] Start on-enter action [o3.z302] execution
17:53:18,021 INFO  [Run] Finish on-enter action [o3.z302] execution
17:53:18,021 INFO  [Run] Finish event [e201] processing. In state
[/A0:Working/A2:Defeat]
17:53:18,021 INFO  [Run] Finish event [e201] processing. In state [/A0:Working]
17:53:18,021 INFO  [Run] Start event [e100] processing. In state [/A0:Working]
17:53:18,021 INFO  [Run] Start event [e100] processing. In state
[/A0:Working/A1:Updating screen]
17:53:18,021 DEBUG [Run] Try transition [Updating screen#Updating screen#e100#true]
17:53:18,021 INFO  [Run] Transition to go found [Updating screen#Updating
screen#e100#true]
17:53:18,021 INFO  [Run] Start output action [o1.z120] execution
17:53:18,021 INFO  [Run] Finish output action [o1.z120] execution
17:53:18,021 INFO  [Run] Finish event [e100] processing. In state
[/A0:Working/A1:Updating screen]
17:53:18,021 INFO  [Run] Start event [e100] processing. In state
[/A0:Working/A2:Defeat]
17:53:18,021 INFO  [Run] Finish event [e100] processing. In state
[/A0:Working/A2:Defeat]
17:53:18,021 INFO  [Run] Finish event [e100] processing. In state [/A0:Working]
17:53:18,021 INFO  [Run] Start event [e104] processing. In state [/A0:Working]
17:53:18,021 INFO  [Run] Start event [e104] processing. In state
[/A0:Working/A1:Updating screen]
17:53:18,021 DEBUG [Run] Try transition [Updating screen#Updating screen#e104#true]
17:53:18,021 INFO  [Run] Transition to go found [Updating screen#Updating
screen#e104#true]
17:53:18,021 INFO  [Run] Start output action [o1.z125] execution
17:53:18,021 INFO  [Run] Finish output action [o1.z125] execution
17:53:18,021 INFO  [Run] Finish event [e104] processing. In state
[/A0:Working/A1:Updating screen]
17:53:18,021 INFO  [Run] Start event [e104] processing. In state
[/A0:Working/A2:Defeat]
17:53:18,021 INFO  [Run] Finish event [e104] processing. In state
[/A0:Working/A2:Defeat]
17:53:18,021 INFO  [Run] Finish event [e104] processing. In state [/A0:Working]
17:53:18,021 INFO  [Run] Start event [e102] processing. In state [/A0:Working]
17:53:18,021 INFO  [Run] Start event [e102] processing. In state
[/A0:Working/A1:Updating screen]
17:53:18,021 DEBUG [Run] Try transition [Updating screen#Updating screen#e102#true]
17:53:18,021 INFO  [Run] Transition to go found [Updating screen#Updating
screen#e102#true]
17:53:18,021 INFO  [Run] Start output action [o1.z122] execution
17:53:18,182 INFO  [Run] Finish output action [o1.z122] execution
17:53:18,182 INFO  [Run] Finish event [e102] processing. In state
[/A0:Working/A1:Updating screen]
17:53:18,182 INFO  [Run] Start event [e102] processing. In state
[/A0:Working/A2:Defeat]
17:53:18,182 INFO  [Run] Finish event [e102] processing. In state
[/A0:Working/A2:Defeat]
17:53:18,182 INFO  [Run] Finish event [e102] processing. In state [/A0:Working]
17:53:23,009 INFO  [Run] Start event [e203] processing. In state [/A0:Working]
17:53:23,009 INFO  [Run] Start event [e203] processing. In state
[/A0:Working/A1:Updating screen]
17:53:23,009 INFO  [Run] Finish event [e203] processing. In state
[/A0:Working/A1:Updating screen]
17:53:23,009 INFO  [Run] Start event [e203] processing. In state
[/A0:Working/A2:Defeat]
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17:53:23,009 DEBUG [Run] Try transition [Defeat#Bankruptcy#e203#o2.x200<=0]
17:53:23,009 INFO  [Run] Start input action [o2.x200] calculation
17:53:23,009 INFO  [Run] Finish input action [o2.x200] calculation. Its value is
[1]
17:53:23,009 DEBUG [Run] Try transition [Defeat#Ready#e203#o2.x200>0]
17:53:23,009 INFO  [Run] Transition to go found [Defeat#Ready#e203#o2.x200>0]
17:53:23,009 INFO  [Run] Start output action [o2.z210] execution
17:53:23,009 INFO  [Run] Finish output action [o2.z210] execution
17:53:23,009 INFO  [Run] Start on-enter action [o1.z103] execution
17:53:23,009 INFO  [Run] Finish on-enter action [o1.z103] execution
17:53:23,009 INFO  [Run] Start on-enter action [o1.z104] execution
17:53:23,009 INFO  [Run] Finish on-enter action [o1.z104] execution
17:53:23,009 INFO  [Run] Start on-enter action [o1.z106] execution
17:53:23,009 INFO  [Run] Finish on-enter action [o1.z106] execution
17:53:23,009 INFO  [Run] Start on-enter action [o1.z108] execution
17:53:23,019 INFO  [Run] Finish on-enter action [o1.z108] execution
17:53:23,019 INFO  [Run] Start on-enter action [o1.z111] execution
17:53:23,019 INFO  [Run] Finish on-enter action [o1.z111] execution
17:53:23,019 INFO  [Run] Start on-enter action [o1.z113] execution
17:53:23,019 INFO  [Run] Finish on-enter action [o1.z113] execution
17:53:23,019 INFO  [Run] Start on-enter action [o3.z304] execution
17:53:23,019 INFO  [Run] Finish on-enter action [o3.z304] execution
17:53:23,019 INFO  [Run] Start on-enter action [o3.z308] execution
17:53:23,019 INFO  [Run] Finish on-enter action [o3.z308] execution
17:53:23,019 INFO  [Run] Start on-enter action [o4.z401] execution
17:53:23,019 INFO  [Run] Finish on-enter action [o4.z401] execution
17:53:23,019 INFO  [Run] Finish event [e203] processing. In state
[/A0:Working/A2:Ready]
17:53:23,029 INFO  [Run] Finish event [e203] processing. In state [/A0:Working]
17:53:23,029 INFO  [Run] Start event [e100] processing. In state [/A0:Working]
17:53:23,029 INFO  [Run] Start event [e100] processing. In state
[/A0:Working/A1:Updating screen]
17:53:23,029 DEBUG [Run] Try transition [Updating screen#Updating screen#e100#true]
17:53:23,029 INFO  [Run] Transition to go found [Updating screen#Updating
screen#e100#true]
17:53:23,029 INFO  [Run] Start output action [o1.z120] execution
17:53:23,029 INFO  [Run] Finish output action [o1.z120] execution
17:53:23,029 INFO  [Run] Finish event [e100] processing. In state
[/A0:Working/A1:Updating screen]
17:53:23,029 INFO  [Run] Start event [e100] processing. In state
[/A0:Working/A2:Ready]
17:53:23,029 INFO  [Run] Finish event [e100] processing. In state
[/A0:Working/A2:Ready]
17:53:23,029 INFO  [Run] Finish event [e100] processing. In state [/A0:Working]
17:53:23,029 INFO  [Run] Start event [e103] processing. In state [/A0:Working]
17:53:23,029 INFO  [Run] Start event [e103] processing. In state
[/A0:Working/A1:Updating screen]
17:53:23,029 DEBUG [Run] Try transition [Updating screen#Updating screen#e103#true]
17:53:23,029 INFO  [Run] Transition to go found [Updating screen#Updating
screen#e103#true]
17:53:23,029 INFO  [Run] Start output action [o1.z124] execution
17:53:23,029 INFO  [Run] Finish output action [o1.z124] execution
17:53:23,029 INFO  [Run] Finish event [e103] processing. In state
[/A0:Working/A1:Updating screen]
17:53:23,029 INFO  [Run] Start event [e103] processing. In state
[/A0:Working/A2:Ready]
17:53:23,029 INFO  [Run] Finish event [e103] processing. In state
[/A0:Working/A2:Ready]
17:53:23,029 INFO  [Run] Finish event [e103] processing. In state [/A0:Working]
17:53:23,029 INFO  [Run] Start event [e102] processing. In state [/A0:Working]
17:53:23,029 INFO  [Run] Start event [e102] processing. In state
[/A0:Working/A1:Updating screen]
17:53:23,029 DEBUG [Run] Try transition [Updating screen#Updating screen#e102#true]
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17:53:23,029 INFO  [Run] Transition to go found [Updating screen#Updating
screen#e102#true]
17:53:23,029 INFO  [Run] Start output action [o1.z122] execution
17:53:23,039 INFO  [Run] Finish output action [o1.z122] execution
17:53:23,039 INFO  [Run] Finish event [e102] processing. In state
[/A0:Working/A1:Updating screen]
17:53:23,039 INFO  [Run] Start event [e102] processing. In state
[/A0:Working/A2:Ready]
17:53:23,039 INFO  [Run] Finish event [e102] processing. In state
[/A0:Working/A2:Ready]
17:53:23,039 INFO  [Run] Finish event [e102] processing. In state [/A0:Working]
17:53:23,039 INFO  [Run] Start event [e104] processing. In state [/A0:Working]
17:53:23,039 INFO  [Run] Start event [e104] processing. In state
[/A0:Working/A1:Updating screen]
17:53:23,039 DEBUG [Run] Try transition [Updating screen#Updating screen#e104#true]
17:53:23,039 INFO  [Run] Transition to go found [Updating screen#Updating
screen#e104#true]
17:53:23,039 INFO  [Run] Start output action [o1.z125] execution
17:53:23,039 INFO  [Run] Finish output action [o1.z125] execution
17:53:23,039 INFO  [Run] Finish event [e104] processing. In state
[/A0:Working/A1:Updating screen]
17:53:23,039 INFO  [Run] Start event [e104] processing. In state
[/A0:Working/A2:Ready]
17:53:23,039 INFO  [Run] Finish event [e104] processing. In state
[/A0:Working/A2:Ready]
17:53:23,039 INFO  [Run] Finish event [e104] processing. In state [/A0:Working]
17:53:25,011 INFO  [Run] Start event [e204] processing. In state [/A0:Working]
17:53:25,011 INFO  [Run] Start event [e204] processing. In state
[/A0:Working/A1:Updating screen]
17:53:25,011 INFO  [Run] Finish event [e204] processing. In state
[/A0:Working/A1:Updating screen]
17:53:25,011 INFO  [Run] Start event [e204] processing. In state
[/A0:Working/A2:Ready]
17:53:25,011 DEBUG [Run] Try transition [Ready#Taking money#e204#true]
17:53:25,011 INFO  [Run] Transition to go found [Ready#Taking money#e204#true]
17:53:25,011 INFO  [Run] Start on-enter action [o2.z204] execution
17:53:26,454 INFO  [Run] Finish on-enter action [o2.z204] execution
17:53:26,454 INFO  [Run] Finish event [e204] processing. In state
[/A0:Working/A2:Taking money]
17:53:26,454 INFO  [Run] Finish event [e204] processing. In state [/A0:Working]
17:53:26,454 INFO  [Run] Start event [e230] processing. In state [/A0:Working]
17:53:26,454 DEBUG [Run] Try transition [Working#Pushing money#e230#true]
17:53:26,454 INFO  [Run] Transition to go found [Working#Pushing money#e230#true]
17:53:26,454 INFO  [Run] Start output action [o1.z141] execution
17:53:26,464 INFO  [Run] Finish output action [o1.z141] execution
17:53:26,464 INFO  [Run] Start output action [o2.z207] execution
17:53:26,464 INFO  [Run] Finish output action [o2.z207] execution
17:53:26,464 INFO  [Run] Start output action [o4.z406] execution
17:53:26,464 INFO  [Run] Finish output action [o4.z406] execution
17:53:26,464 INFO  [Run] Finish event [e230] processing. In state [/A0:Pushing
money]
17:53:26,464 INFO  [Run] Start event [e100] processing. In state [/A0:Pushing
money]
17:53:26,464 DEBUG [Run] Try transition [Pushing money#Pushing money#e100#true]
17:53:26,464 INFO  [Run] Transition to go found [Pushing money#Pushing
money#e100#true]
17:53:26,464 INFO  [Run] Start output action [o1.z142] execution
17:53:26,464 INFO  [Run] Finish output action [o1.z142] execution
17:53:26,464 INFO  [Run] Finish event [e100] processing. In state [/A0:Pushing
money]
17:53:26,464 INFO  [Run] Start event [e105] processing. In state [/A0:Pushing
money]
17:53:26,464 DEBUG [Run] Try transition [Pushing money#Pushing money#e105#true]
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17:53:26,464 INFO  [Run] Transition to go found [Pushing money#Pushing
money#e105#true]
17:53:26,464 INFO  [Run] Start output action [o1.z127] execution
17:53:26,464 INFO  [Run] Finish output action [o1.z127] execution
17:53:26,464 INFO  [Run] Finish event [e105] processing. In state [/A0:Pushing
money]
```